PUK5

THE IMPACT ON COSTS OF TREATING COMPLICATIONS DUE TO CRONIC KIDNEY DISEASE IN PATIENTS UNDERGOING HEMODIALYSIS IN THE PRIVATE HEALTH CARE SYSTEM IN BRAZIL

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OBJECTIVES: To evaluate the impact on costs of treating complications derived from chronic kidney disease (CKD) in patients undergoing hemodialysis in the private health care system in Brazil. **METHODS:** Owing to the lack of local databases, a survey with experts was conducted to collect data about the main causes of hospital admissions which resulted from complications during the dialysis period of CKD patients. A universe of 600 patients from reference centers in Brazil was studied. Later, the experts answered to a questionnaire about the procedures needed to manage complications. Then, a micro-costing was performed, only direct costs were considered: length of staying, medical procedures, physician fees and drugs. Sources used for costing were: CBHPM 2009 v.5 (physicians fees list), Revista Kairos (January 2009) (drugs price list) and Guia Farmacêutico Brasíndice (January 2009) (materials price list). The time horizon of this analysis was 1 year, thus no discount rate was assumed. The perspective assumed was that of the private payer. **RESULTS:** The 3 most frequent causes of hospital admissions and their respective costs in the studied centers were: cardiac complications (33.27%; R$3799); infections (31.90%; R$3508); and venous access complications (9.20%; R$2268). For an average patient, the total costs in 1 year of treatment were estimated to be R$5393. **CONCLUSIONS:** This study suggests that for the 600 patients studied group the economic impact for the private payer with hospital admissions caused by CKD complications is significant being as high as R$3236,393 in one year.

PUK7

ANALYSIS OF THE PHARMACOTHERAPY COST OF PATIENTS WITH KIDNEY TRANSPLANTATION IN BULGARIA

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OBJECTIVES: The financial burden of kidney transplantation depends on many variables as the age of patients, available complications, success rate, introduction of new medicines etc. The objective is to analyze the pharmacotherapy cost of patients with kidney transplantation in Bulgaria during 2006–2009. **METHODS:** It was collected information for all patients with kidney transplantation during 2006–2009. Out of 523 transplantated patients (n = 520) were included in the observation. The patient sample was systematized according to patient age, gender, medicines used for main and supporting therapy, monthly and yearly cost of pharmacotherapy. **RESULTS:** Thirty-six percent (n = 189) are female and 64% (n = 331) are male. Prevailing part of patients are among 31 to 50 years old (n = 264; 51%). Below 20 years are 7 patients and up to 70 years are 6 ones. The standard therapy includes a combination of immunosuppressants. In the prevailing part of the patients were prescribes ciclosporin A or sirolimus in combination with azathioprine or mycophenolic acid. In case of allograft rejection the thymoglobulin is used and in case of HBV infection is used lamivudine. The CMV therapy is performed with gancyclovir. The monthly cost of therapy during the first year of observation is varying among 8.29–€1276 for 354 of the patients, while the monthly cost at the end of the period was 9.08–€931.81 for €374 of the patients. The yearly cost of pharmacotherapy was found to vary on average from 3973 to 4325 per treated patient but the drop out level was high. **CONCLUSIONS:** Most of the modern medicines have been found prescribed in the collected sample with a tendency for new medicines inclusion early after their market launch. The main dominants of the pharmacotherapy cost changes are the availability of infections, followed by the kidney rejection risk, and new medicines appearance on the local market.

PUK8

THE COST-EFFECTIVENESS OF PHOSPHATE BINDERS FOR THE TREATMENT OF HYPERPHOSPHATEMIA IN CHRONIC KIDNEY DISEASE (CKD)

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OBJECTIVES: No research has comprehensively examined the cost-effectiveness between the phosphate binders within the CKD marketplace. Therefore, a model was developed to evaluate the cost-effectiveness of Fosrenol® (lanthanum carbonate), relative to other second tier agents, Renagel®/Renvela® (sevelamer hydrochloride/sevelamer carbonate), for the treatment of hyperphosphatemia in CKD. **METHODS:** A cost-effectiveness model was constructed from a managed care perspective. Two different time horizons including 1 day and 1 year were considered. Model inputs were AWP, DACON, phosphate binding capacity, and percent of patients with phosphorous control. Comparators included lanthanum carbonate (1,000 mg), sevelamer hydrochloride (800 mg), and sevelamer carbonate (800 mg). Model outcomes consisted of the cost per phosphate bound daily and the cost per successfully controlled patient. Two break-even analyses were examined adjusting for the daily cost and percent of successfully controlled patients based on the most cost-effective agent. **RESULTS:** Lanthanum carbonate has a lower DACON (3.3) compared with sevelamer hydrochloride (8.2) and sevelamer carbonate (8.2) yet results in a greater amount of phosphate bound daily (514.8 mg versus 236.2 mg and 236.2 mg). This translates into $0.03 per 1 gm of phosphate bound daily as compared to $0.07 for sevelamer hydrochloride and $0.06 sevelamer carbonate. The daily cost of lanthanum carbonate would need to increase between 114–167% for the cost per phosphate bound to be equivalent to sevelamer carbonate or sevelamer hydrochloride. The yearly cost per successful treatment was $7,542 with lanthanum carbonate, $17,476 with sevelamer hydrochloride, and $13,981 with sevelamer carbonate. The percent of successfully controlled patients treated with sevelamer carbonate or sevelamer hydrochloride would need to increase 85%–131% for the cost per successfully controlled patient to be equivalent to lanthanum carbonate. **CONCLUSIONS:** These results suggest lanthanum carbonate is a cost-effective phosphate binder in the treatment of hyperphosphatemia among CKD patients relative to other second line agents.

PUK9

OPEN COLPOSUSPENSION, TENSION-FREE VAGINAL TAPE AND TENSION-FREE OBTURATOR TAPES IN THE MANAGEMENT OF STRESS URINARY INCONTINENCE IN WOMEN: A COLOMBIAN COST-EFFECTIVENESS MODEL

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OBJECTIVES: This study aims to assess the cost-effectiveness of open colposuspension (OC) and two suburethral sling techniques: the tension free vaginal tape (tension-free vaginal tape (TVT)) and the transobturator tape (transobturator tape (TOT)) in colombian women. **METHODS:** As part of a clinical practice guideline development we conducted a review of literature to identify effectiveness measures for the procedures and complications for each one. To represent recurrent states of SUI, we created a Markov model. Three interventions were evaluated in four stages (continence, relapse-retreatment, incontinence and dead). Some assumptions were introduced (e.g. relapse for open colposuspension treated with vaginal tapes, TVT with TOT and TOT with TVT, two different scenarios with continent improvement). We programmed model to 85 years with a model entrance in 45 years. We used a discount rate of 3% for cost and effects (DALY: Disability-adjusted life year). All direct costs were extracted from SOAT price list. We calculated incremental cost-effectiveness ratio (ICER), generated efficiency and affordability curves. CE threshold was Gross domestic product (GDP) (3619/USD). All Colombian pesos were converted to dollars applying the following rate (2100pesos/1USD). Sensitivity analysis was done. All analysis were performed in Treeage Pro. **RESULTS:** In spite the most effective alternative is TVT, this is the most expensive. CE threshold for TOT was US$815 and TVT was US$948 per procedure and no more than US$2875 per each women treated. ICER for TVT and TOT comparing with OC was 9720 and 45140 US$/AVAD, without discount, exceeding GDP threshold. Discounted ICER´s were higher. **CONCLUSIONS:** Open colposuspension remained more CE than other alternatives. Less than US$2857 per each women treated can improve CE for TOT and TVT and reduces their ICER. Cost-effectiveness evaluation for introducing health technology and clinical practice guidelines must be developed in our country.

PUK10

COST-EFFECTIVENESS OF COMBINATION THERAPY FOR TREATMENT OF BENIGN PROSTATIC HYPERPLASIA

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OBJECTIVES: To explore whether combination therapy (COMBO) with dutasteride and tamsulosin, provides meaningful additional benefits compared to each individual therapy or watchful waiting (WW). **METHODS:** COMBAT, a randomized, double-blind, parallel group study investigating the efficacy and safety of dutasteride (0.5 mg) and tamsulosin (0.4 mg), administered once daily for four years, alone and in COMBO, in symptomatic BPH patients. A Markov model was developed comparing the monotherapies, COMBO, and a watchful waiting (WW) reference group. The model evaluated the treatment costs and quality adjusted life years (QALY) at four yrs and lifetime based on the efficacy results of COMBAT. Incremental cost effectiveness ratios (ICER) were calculated using WW as the basis of comparison. One way sensitivity analyses were conducted in addition to the basecase analysis. **RESULTS:** Four years: ICER results for the COMBO and dutasteride arms were similar and higher than the tamsulosin arm, as the reduction in BPH progression events could not offset the higher drug costs. Overall, the QALY benefits of the COMBO and dutasteride arms were greater than the tamsulosin arm. Lifetime: ICERs decrease from those estimated at 4 yrs. COMBO benefits become apparent in this extended time horizon. Follow-up and BPH progression costs of the monotherapies outweigh the higher initial drug cost of COMBO, in addition monitoring costs are lower for COMBO than for either of the MONOs or WW. The difference in event costs is indicative of lower BPH progression events in COMBO arm. **CONCLUSIONS:** Results at both time horizons indicate that the combination of dutasteride with tamsulosin for BPH provides gains in QALYs over WW and monotherapy arms, and acceptable cost effectiveness ratios compared to WW and the monotherapy arms. The availability of a fixed dose COMBO, priced the same as dutasteride monotherapy could provide substantial health care benefits to patients and cost savings to the health care system.